

REMARKS

In accordance with the foregoing, claims 3 and 10 have been amended. Claims 9 and 13 have been cancelled. Claims 1-8, 10-12 and 14-20 are pending and under consideration.

CLAIM OBJECTIONS UNDER 37 C.F.R. §1.75(c)

In this Office Action, at item 1 on page 2, claim 3 is objected to under 37 C.F.R. §1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. The Examiner regards "copper" in claim 1 as nothing "other than elemental copper," and thus the Examiner concludes that, in claim 3, the copper limitation is "expanded" to include copper compounds.

Applicants respectfully disagree with the Examiner because, in the specification of this application, regarding "copper," the form may be any of "metallic copper, copper ion and copper compound, but the form of copper ion or copper compound is more preferred (Application, page 32, lines 19-22). Nothing in claim 1 of the application restricts copper to elemental copper. Therefore, "copper" in claim 1 includes "metallic copper, copper ion and copper compound" according to the description of the specification.

With this Amendment, amended claim 3 recites "a copper compound," and therefore, further limits the subject matter of claim 1. Therefore, Applicants request that the claim objections under 37 C.F.R. §1.75(c) be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

(A) Claims 1-11, 13-17 and 19-20

In this Office Action, at item 5 on page 3, claims 1-11, 13-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyoshi et al. (US 2003/0134963) ("Miyoshi") in view of Peters (EP 0747436) ("Peters"). As the Examiner states, Miyoshi discloses polyamide, polyphenylene ether ("PPE"), copper and carbon black, and Peters teaches that a PPE having a MW of from 20,000 to 80,000 is preferable.

Although claim 1 is not so limited, one potential goal of the present invention is to improve multi axial impact strength of a curved plate as well as multi axial impact strength of a

planar plate. It is first realized that, by limiting a weight average molecular weight of polyphenylene ether to a particularly small range of from "45,000 to 65,000," and by further limiting dispersed particles of polyphenylene ether to a particular range, Dv/Dn from "2.0 to 5.0," the resin has excellent stability and impact resistance. Therefore, the present invention has clear critical properties, which discriminate the product of the present invention from that of either **Miyoshi** or **Peters**.

In FIG. 1 of the application, the "X-axis" refers to the value of Dv/Dn, and the "Y-axis" refers to the weight average molecular weight of polyphenylene ether (PPE) in the resin. Examples that are within both the "45,000 to 65,000" range of the weight average molecular weight of the PPE and the "2.0-5.0" range of the Dv/Dn ratio show strong impact strength for both a flat plate and a curved surface (Application, page 72, lines 12-23). However, Examples 11 and 12 (Application, page 63, Table 2), Examples 15 and 16 (Application, page 66, Table 3), and Example 19 (Application, page 69, Table 4) are outside the ranges mentioned in FIG. 1, and therefore show weaker impact strength for either a flat plate or a curved surface, or both.

The teaching of **Peters** as to a range of molecular weight of polyphenylene ether from 20,000 to 80,000 is only a general limitation. **Peters** never discloses or suggests that the range claimed by the present invention exerts the prominently advantageous effect.

Further, neither **Miyoshi** nor **Peters** discloses or suggests that, even if molecular weight of polyphenylene ether is within the claimed range, the advantageous effects cannot sufficiently be expressed if the polyphenylene ether does not meet the condition of Dv/Dn within the range of "2.0 to 5.0."

One potential application, not claimed in claim 1, may satisfy the market's demand for a planar or a curved plate having improved multi axial impact strength, which demand no product has ever satisfied. However, the references cited by the Examiner never suggest the claimed features. Further, there is no mention of solving such a difficult problem.

Therefore, a person skilled in the art could not have thought of the claimed ranges of the present invention based on the teachings of **Miyoshi** and **Peters**.

Therefore, Applicants request that the rejection of claims 1-11, 13-17 and 19-20 under 35 U.S.C. §103(a) be withdrawn.

(B) Claim 12

In this Office Action, at item 6 on page 5, claim 12 is rejected under 35 U.S.C 103 (a) as being unpatentable over **Miyoshi**, in view of **Peters**, and further in view of Nakagawa et al. (US 2004/0157978) ("**Nakagawa**"). Applicants respectfully disagree with the Examiner.

Nakagawa never discloses or suggests the range of Dv/Dn value, the limitation requisite for the present invention. Further, **Nakagawa** makes no mention of improving multi axial impact strength of a planar molded article having curved surface. Thus, the unobviousness of the present invention cannot be denied by **Nakagawa**.

Therefore, Applicants request that the rejection of claim 12 under 35 U.S.C. §103(a) be withdrawn.

(C) Claim 18

In this Office Action, at item 7 on page 6, claim 18 is rejected under 35 U.S.C. 103 (a) as being unpatentable over **Miyoshi**, in view of **Peters**, and further in view of Ito et al. (US 6,572,721) ("**Ito**").

Claim 18 relates to a molded article with curved surface comprising a resin composition of claim 1. In contrast, **Ito** relates to an aluminum panel, and is cited by the Examiner only for showing that it has curved surface as an exterior material for vehicles. However, claim 20 of the present application relates to a resin composition (not an aluminum panel) directed to an exterior material for vehicles. It is somewhat irrelevant that both have a similar curved surface.

The invention of claim 18 may potentially improve multi axial impact strength of the molded article having the curved surface, which is made of a resin composition. Since the invention of claim 1 is patentable over **Miyoshi**, the unobviousness of the invention of claim 18 cannot be denied by **Ito** because **Ito** does not compensate for the deficiencies discussed above with regard to **Miyoshi** and **Peters**.

Therefore, Applicants request that the rejection of claim 18 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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